

5 .00005 mica  
6 9 mc. oscillator trimmer  
7 10.0 mfd. lytic  
8 .16 mfd. x 350 w.v.  
9 .015 x 600 v.  
10 .015 x 600 v.  
11 1 x 400 v.  
12 1 x 200 v.  
13 .05 x 400 v.  
14 .5 x 200 v.  
15 .0001 mica  
16 .0001 mica  
17 1 x 200 v.  
18 .006 x 600 v.  
19 .00025 mica  
20 1 x 400 v.  
21 .05 x 400 v.  
22 .008 x 600 v.  
23 .00005 mica  
24 .000125 mica  
25 .003 x 600 v.  
26 .00025 mica  
C3 and C4 in same unit  
C15, C17 and C21 in same unit

## PARTS

- |    |        |                       |
|----|--------|-----------------------|
| T1 | 111237 | Loop antenna assembly |
| T2 | 111195 | B.C. antenna coil     |
| T3 | 111190 | 9 mc. antenna coil    |

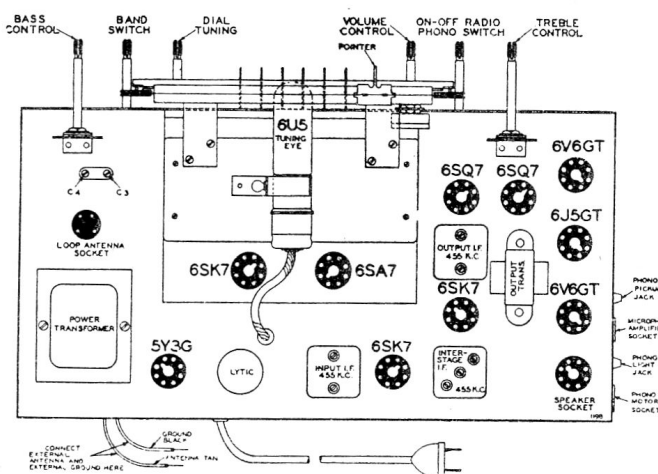
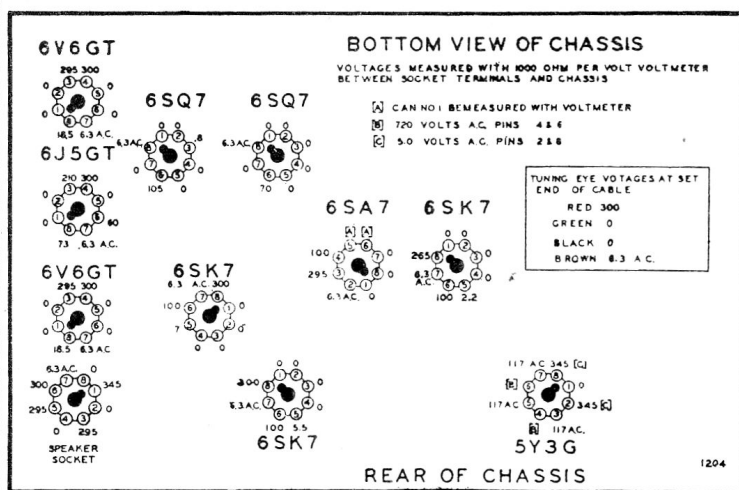
## CONDENSERS

- |     |        |                            |
|-----|--------|----------------------------|
| C1  | 1292   | .0005 mica                 |
| C2  | 10047  | .002 x 600 v.              |
| C3  | 124143 | B.C. antenna trimmer       |
| C4  | 124143 | 9 mc. antenna trimmer      |
| C5  | 1292   | .0005 mica                 |
| C6  | 10020  | .1 x 200 v. tubular        |
| C7  | 129168 | .00001 mica                |
| C8  | 124139 | 9 mc. R.F. trimmer         |
| C9  | 124139 | B.C. R.F. trimmer          |
| C10 | 10074  | .1 x 400 v.                |
| C11 | 10074  | .1 x 400 v.                |
| C12 | 10061  | .02 x 600 v.               |
| C13 | 1292   | .0005 mica                 |
| C14 | 10061  | .02 x 600 v.               |
| C15 | 119112 | 30.0 m.d. lytic            |
| C16 | 124144 | B.C. oscillator trimmer    |
| C17 | 119112 | 30.0 m.d. lytic x 450 w.v. |
| C18 | 129167 | .0002 silver mica          |

Code Part No.	Description
R1	25M ohm— $\frac{1}{2}$ w.
R2	25M ohm— $\frac{1}{2}$ w.
R3	1 megohm— $\frac{1}{2}$ w.
R4	250 ohm— $\frac{1}{2}$ w.
R5	5M ohm— $\frac{1}{2}$ w.
R6	1 megohm— $\frac{1}{2}$ w.
R7	25M ohm— $\frac{1}{2}$ w.
R8	6M ohm—2 w.
R9	10M ohm—2 w.
R10	1 megohm in tuning indicator cable

- |       |        |                    |                          |
|-------|--------|--------------------|--------------------------|
| 13016 | 900    | ohm- $\frac{1}{3}$ | w.                       |
| R11   | 10M    | ohm- $\frac{1}{2}$ | w.                       |
| R12   | 13082  | 10M                | ohm- $\frac{1}{2}$ w.    |
| R13   | 130235 | 1500               | ohm- $\frac{1}{3}$ w.    |
| R14   | 130192 | 2M                 | ohm- $\frac{1}{3}$ w.    |
| R15   | 130192 | 2M                 | ohm- $\frac{1}{3}$ w.    |
| R16   | 13019  | 1                  | megohm- $\frac{1}{3}$ w. |
| R17   | 1303   | 500M               | ohm- $\frac{1}{3}$ w.    |
| R18   | 130317 | 250                | ohm-2 w.                 |
| R19   | 1303   | 500M               | ohm- $\frac{1}{3}$ w.    |
| R20   | 13094  | 50M                | ohm- $\frac{1}{2}$ w.    |
| R21   | 130316 | 120M               | ohm- $\frac{1}{3}$ w.    |
| R22   | 101229 | 500M               | ohm volume               |
| R23   | 13093  | 500M               | ohm- $\frac{1}{3}$ w.    |
| R24   | 13094  | 50M                | ohm- $\frac{1}{2}$ w.    |
| R25   | 130218 | 5M                 | ohm- $\frac{1}{3}$ w.    |
| R26   | 13094  | 50M                | ohm- $\frac{1}{2}$ w.    |
|       |        |                    | control                  |

BAND	SIGNAL GENERATOR				Dial Pointer Setting	Trimmers Adjusted in Order Shown	Trimmer Function	Adjustment
	Frequency Setting	Dummy Antenna	Connection to Radio	Position of Band Switch				
I. F.	455 Kc.	.1 MFD.	Grid of 6SK7 (I.F.)	Broadcast	Set Dial at 1600 Kc.	Two Trimmers on Top	Output I. F.	Adjust to Maximum output
	455 Kc.	.1 MFD.	Grid of 6SA7	Broadcast	Set Dial at 1600 Kc.	Two Trimmers on Top	Input I. F.	Adjust to Maximum output
31 METER BAND	9.6 Mc.	400 ohms	Antenna lead	31M	Set Dial at 9.6 Mc.	(See Trimmer View) C20 (See Trimmer on Top) C8 C4	Osc. R. F. Ant.	Adjust to Maximum output
49 METER BAND	6.1 Mc.	400 ohms	Antenna lead	49M	Set Dial at 6.1 Mc.	(See Trimmer View) T14 (See Trimmer View) T8 T4	Osc. R. F. Ant.	Adjust to Maximum output
25 METER BAND	11.8 Mc.	400 ohms	Antenna lead	25M	Set Dial at 11.8 Mc.	(See Trimmer View) T15 (See Trimmer View) T9 T5	Osc. R. F. Ant.	Adjust to Maximum output
19 METER BAND	15.2 Mc.	400 ohms	Antenna lead	19M	Set Dial at 15.2 Mc.	(See Trimmer View) T16 (See Trimmer View) T10 T6	Osc. R. F. Ant.	Adjust to Maximum output
BROADCAST BAND	1600 Kc.	200 mmf.	Antenna lead	Broadcast	Set Dial at 1600 Kc.	(See Trimmer View) C16 (See Trimmer View) C9 C3 (See Trimmer on Top)	Osc. R. F. Ant.	Adjust to Maximum output
	1400 Kc.	200 mmf.	Antenna lead	Broadcast	Set Dial at 1400 Kc.	Rotate Core T11 Rotate Core T2 (See Iron Core Adjustment View)	R. F. Ant.	Adjust to Maximum output



## Power Consumption

Radio Only - - - - 120 Watts

Power Output - - - 10 Watts  
Undistorted

Sensitivity for 500 Milliwatt  
Output: - 10 Microvolts Average

Selectivity - 27 KC Broad at 1000  
Times Signal at 1000 KC

Tuning Frequency Range Broadcast  
Band - - 540 to 1600 KC

49M Band - 5.9 to 6.1 MC

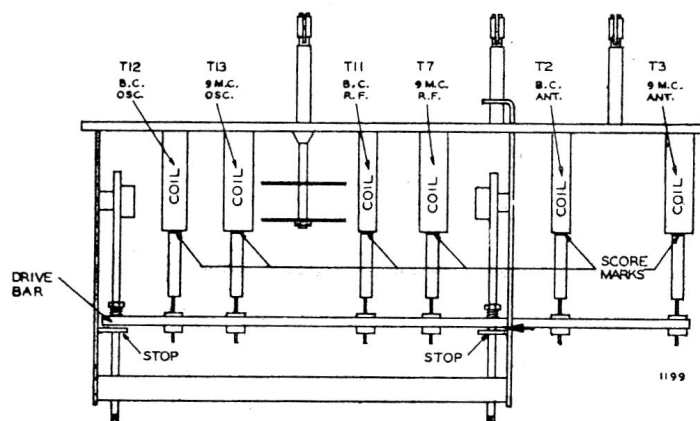
31M Band - 9.1 to 10 MC

25M Band -11.4 to 12.1 MC

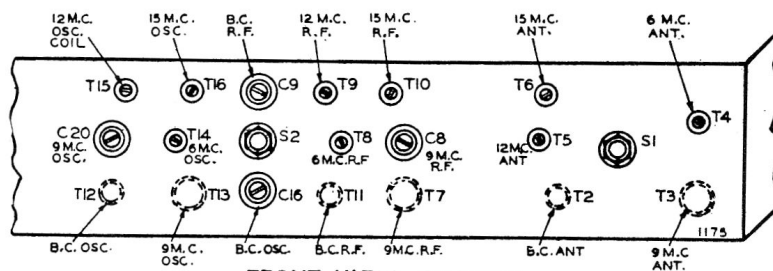
19M Band -14.9 to 15.4 MC

Intermediate Frequency - - - 455 KC

Speaker - - 12 in. Electro Dynamic



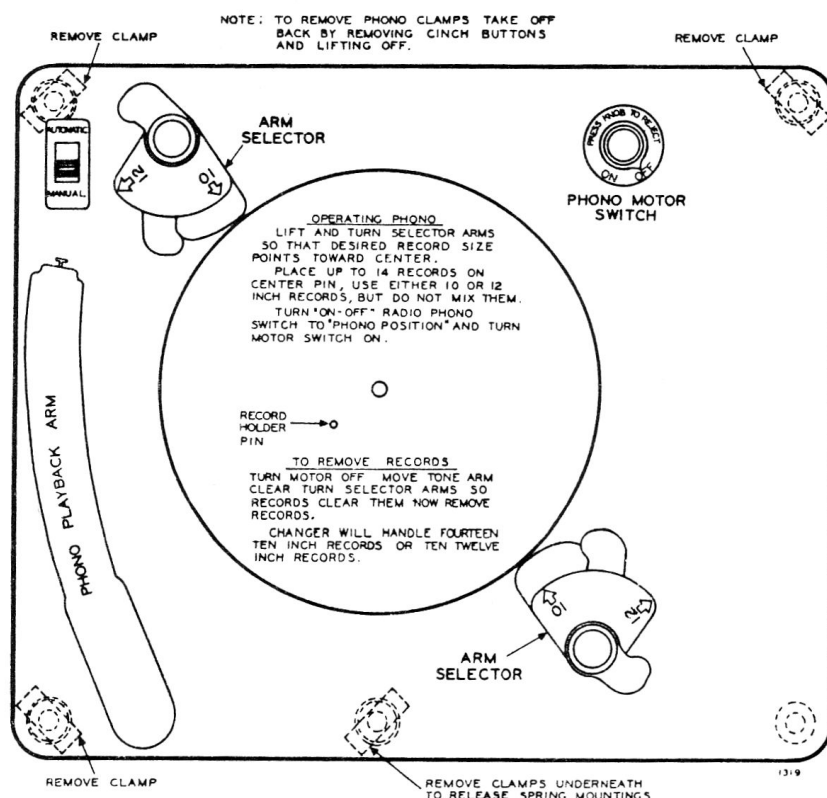
IRON CORE ADJUSTMENT VIEW



### FRONT VIEW CHASSIS

BELMONT RADIO CORP.

# Automatic Record Changer--Operating Instructions



## Unloading

First switch off the motor. Grasp each post by its knob at the top and turn them out of the way.

Lift the played records from the turntable. Then return the posts to the proper playing position as indicated by the arrows on the selecting arms.

The Changer may then be loaded with a new stack of records according to the size shown on the selecting arms.

## Turning Off Changer

Throw Changer switch knob to "OFF" position.

Lift tone arm and place it in the rest position. (If you happen to turn off the Changer switch while the mechanism is going through a "change cycle," you will notice that it does not stop until the cycle has been completed, and the tone arm is again in playing position, at which point it is ready to be lifted to the rest position. If you prefer to turn off your Changer with the radio switch, be sure to turn it off while needle is resting upon a record; otherwise, the selecting arms cannot be correctly reset.

To avoid warping of records, never leave records resting on posts.

## If Changer is Left Running

No damage will be done if you forget to turn off Changer after it has played its entire load of records. It will simply repeat the last record until stopped or reloaded.

## Phonograph Needles

In general there are two types of needles which can be satisfactorily used on an Automatic Record Changer: those which require changing after approximately 12 records, and the so-called permanent type needles which are rated in terms of "hours of service." In no case should the manufacturers' claims for these needles be exceeded, since in all probability the needles are rated in terms of their maximum life.

## Setting for Size of Record

The Changer plays up to fourteen 10" or ten 12" records at one loading. All records must be the same size for each loading.

On each post you will see selecting arms. The position of these arms determines the setting for different size records. To set for 10 or 12 inch records, it is merely necessary to grasp the posts by the knobs at the top, lift, and turn until the 10" or 12" arrows are pointing toward the center of the turntable. When in either the 10" or 12" position, the posts will snap into place except when they are lifted by hand. Be sure to set both posts for the same size record.

## Loading

See that the selecting arms of both posts are turned toward the center of the turntable as indicated by the engraved arrows, and that both sets of arms are set for the same size (10" or 12") records as described in the preceding paragraph.

Place the stack of records (up to fourteen 10" or ten 12") over the center

pin so that they will rest on the selecting arms.

## Starting the Changer

1. Turn on the radio (allowing approximately 30 seconds for the tubes to warm up) and turn the phonograph-radio knob, to the phonograph position.

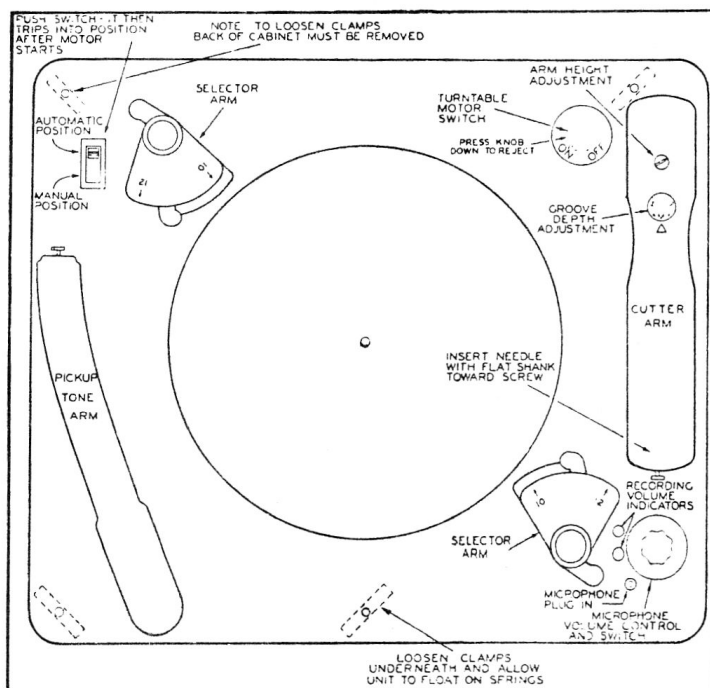
2. Turn the switch knob on the Record Changer panel to "ON". The motor will then start and the record changer will go into automatic operation of its own accord.

## How to Reject a Record

Merely press the switch knob on the Changer panel. You can do it any time after the needle has come into contact with that record.

## Automatic—Manual Switch

When this switch is pushed towards the manual position the selector arms can be turned out of the way and individual records played without the automatic changer working—To operate the changer again push the switch to automatic, start the motor and press the reject button.



### Operating the Phono on Home Recordings

Turn radio on. Put phono switch in "Phono" position.

Push manual switch toward manual side to play home recordings.

Put your record on turntable and start motor. Place playback arm on record and control tone and volume with the radio volume and tone control knobs.

Be sure mike control is turned off when playing records.

### Recording Radio Programs

Turn the radio on and tune in the program you wish to record. Put manual switch in manual position. Start motor and then gently lower cutting needle onto blank record, about  $\frac{1}{4}$ " from outer edge. Radio Volume will drop—Adjust volume control so red volume indicator light is off and white indicator light continues to flicker.

**NOTE**—Some radios of this model are equipped with a recording arm on the record changer with which you can make your own records. If your radio has the recording unit follow the instructions below for making records.

The Mike volume control must be turned off (all the way left) except when recording with the microphone.

The two volume indicator lights along side the microphone volume control are used for setting the proper recording level. When recording radio programs the radio volume control should be adjusted so that the red indicator light remains off while the white continues to flicker. When recording with the microphone the lights should be adjusted in the same manner but using the microphone volume control.

### Microphone Recording

Turn the mike volume control well up. Phono pushbutton should be in "Phono" position. Put manual switch in manual position. Start motor, and set cutting needle gently on start of record. Adjust volume indicator lights the same as in recording radio programs.

**NOTE:** The cutting arm must be raised about three inches to move it freely across the record.

## How to Make Perfect Recordings

### Cutting Needle

The cutting stylus is razor sharp and must not be dropped on the record or allowed to rest on the turntable.

For best operation, the instrument should be level in all directions. To check this, place a small level, if you have one, on the turntable. If you do not have a level, a marble will do. If the marble rolls off the turntable, it is low in the direction in which it rolls. Place something under the cabinet until the machine is reasonably level.

### Shavings

The cutting stylus cuts out a fine shaving that is just a little thicker than a human hair. These shavings should not be allowed to gather under the cutting stylus.

While cutting, gently brush the shavings from the left side of the record in, toward the center pin, allowing them to

collect there until the recording is completed.

### Do Not Use Too Much Volume

The most frequent cause of poor recordings is too much volume or overloading. If some passages of your recording are smooth and clear while others are raspy, rough and distorted, you are probably using too much volume. Overloading occurs most often on strong passages. The remedy is to reduce the volume slightly and watch the volume indicator lights.

Too little volume will show up when you play the record back. The volume control on playbacks will have to be turned up quite high and needle scratch will be excessive.

### Cutting Arm Adjustments

The cutting arm is adjusted at the factory for proper operation, however,

with various types of blanks this adjustment may sometimes have to be altered. With a blank record on the table, the height adjustment on the cutter arm should be adjusted so that the needle screw is centered in the slot when the needle rests on a blank record.

Several blank grooves should now be cut to see if the groove is the proper depth. The depth adjustment screw on the cutter arm will increase the depth of the groove if turned to the letter "H" and will decrease the groove if turned to the letter "L"—For a medium groove turn to "M".

If the groove is too shallow, the playback needle will not stay in the groove. If it is too deep, not enough wall will be left between grooves and the playback needle will break through from one track to the next after a few playings.

A properly cut groove will leave a shaving just a little heavier than a human hair.